REMARKS

In response to the Office Action mailed January 30, 2004, Applicant amends his application and requests reconsideration. No claims are added or cancelled so that claims 1-8 and 13-16 remain pending.

Claims 1-4 are allowed. Claims 7, 8, 14, and 15 are allowable. Therefore, there is no necessity of commenting on any of those claims.

Claims 5, 6, 13, and 16, all independent claims, remain rejected as unpatentable over Ma et al. (U.S. Patent 5,939,753, hereinafter Ma) in view of Wang (U.S. Patent 6,351,363). This rejection is again respectfully traversed.

In this Amendment a clarifying change is made in each of the four rejected independent claims. The structure of the capacitor described in the final paragraph of each of those claims is described in more detail. That capacitor has polysilicon electrodes separated by a dielectric layer, one of those electrodes being referred to as the lower electrode of the capacitor. The amended claims point out that the lower electrode of the capacitor and the first lateral polysilicon diode share a common first polysilicon layer. This description is supported in the patent application, for example in connection with the description of process steps in Figures 21(b) and 21(c) at page 26, lines 7-14 of the patent application. The remaining steps in the process to produce the finished structure, as claimed, continue through Figure 24(b) of the patent application.

The rejection is traversed with respect to the claims now presented because neither Ma nor Wang describes that a polysilicon diode and the lower electrode of the associated capacitor share a single first polysilicon layer.

Wang was cited only with respect to particular circuitry and does not disclose any particular semiconductor device structure that could be of assistance in comparing the amended claims to the prior art. Thus, in order to evaluate the rejection in view of the claims now presented, the important reference is Ma. Figure 8 of Ma is a representative figure showing in cross-section a semiconductor device structure. Moving from left to right in that figure, there are three or four field effect transistors illustrated at 114, 113, and 115. Then, at 57 and 58 are shown a capacitor and a resistor, respectively. The capacitor and resistor are each located on respective field oxide regions 38. The capacitor 57 includes two polysilicon electrodes 44 and 56 separated by an insulating film 45. The transistors at 114, 113, and 115 include polysilicon gates 54, 53, and 55, respectively. It is apparent from the different elevations of the polysilicon layers, i.e., the gate electrodes 53, 54, and 55 and both of the

share a polysilicon layer with any of the transistors. In other words, if any of the transistors shared polysilicon films with the capacitor electrode, i.e., had elements made from the same polysilicon film from which either of the electrodes of the capacitor is made, that those films would be at the same elevation in Figure 8 of Ma. Since there is no such similar elevation, Ma cannot make the amended claims unpatentable.

The foregoing interpretation of Figure 8 of Ma is confirmed by considering Figures 4 and 5 in the associated description in Ma. As shown in Figure 4, well before the polysilicon layer for forming parts of the field effect transistors is deposited, the polysilicon layer 42, forming the lower electrode of the capacitor, is deposited. Thereafter, in a separate step, the polysilicon film 52 is deposited and patterned to form the polysilicon gates of the transistors and the upper electrode of the capacitor.

There is no sharing of a polysilicon film by the lower electrode of the capacitor and the transistors in Ma. In Ma, there is no sharing of such a polysilicon film between the capacitor lower electrode and a transistor. Therefore, even if Ma is modified by Wang, with replacement of the transistors by diodes, there is still no teaching for the sharing of polysilicon layers between the diodes and the capacitor lower electrodes. Stated another way, no combination of Ma and Wang can suggest the invention as defined by amended claims 5, 6, 13, and 16. Therefore, the rejection of the four independent claims 5, 6, 13, and 16, should, upon reconsideration, be withdrawn.

In addition to the foregoing explanation, demonstrating that claims 5, 6, 13, and 16 are patentable over the asserted combination of Ma and Wang, Applicant renews the arguments submitted in the Amendment of November 3, 2003, beginning with the final paragraph on page 6 of that amendment and continuing through the first two lines of page 8. Those arguments are maintained and incorporated by reference, without again being set forth at length.

For each of the foregoing reasons, presented independently, the rejection of claims 5, 6, 13, and 16 should be withdrawn with the result that all pending claims, claims 1-8 and 13-16, are allowed.

Respectfully submitted,

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Date: April 29, 2004
JAW:tps
Amendment or ROA - Regular (Revised 9/03/03)